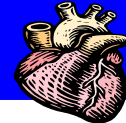
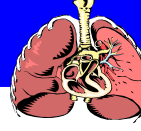
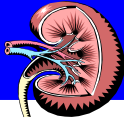


# VA National Transplant Program Newsletter



A Publication of Medical /Surgical Services

August 2004

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## Message from the VA National Transplant Program Office: Congratulations to Tennessee Valley Health Care System Transplant Team



# Congratulations Team

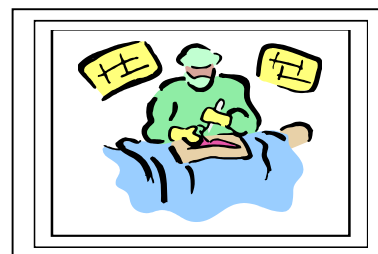


HEY VA! HAVE YOU HEARD? The Tennessee Valley Healthcare System (TVHS) Transplant Team reached a milestone on June 10, 2004, by performing the 3000th kidney transplant since the program began in 1962. The transplant recipient, referred from the Gainesville, FL., VAMC, had been waiting for more than two years for a kidney and was on dialysis for four years. He celebrated his 66th birthday just seven days after the transplant. Although the veteran was concerned about the possibility of not getting a kidney because of his age, **Dr. William A. Nylander, Jr.**, Chief of Surgical Services and head of the kidney transplant team, stressed that age is not a factor in renal transplant. For more than a quarter century, TVHS and Nashville's Vanderbilt University Medical Center have collaborated in organ transplants and have become one of the largest programs in the United States. TVHS is one of the referral centers for all organ transplants for VA medical centers around the nation.

1	Message: Transplant Staff: Congratulations	5-6	Abstracts and Transplant Presentation Summaries
2	Cancer and Liver Transplants	7-8	Rabies Infections in Organ Donor and Transplant Recipients in 2004
3	<b>Feature:</b> Fulminant Hepatic Failure (FHF): High Incidence of Herbal Supplement Use.	8	Cyclosporine: Potential for Inappropriate Substitution
4-5	Documents Required for Transplant Referral Process	9-10	COLLAGE US Organ transplant Games HIV+ Veterans and Organ Transplants
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		11	Upcoming Events & Training, Hot Topics for Future Newsletter, Transplant Websites VA National Transplant Editorial Board

## Cancer and Liver Transplant

Submitted by Joseph Awad, M.D., and Pam Hale, R.N.  
Tennessee Valley Health Care System –Transplant Center, Nashville, TN



- Cancer diagnosis for which there is a greater than 90% survival for 5 years with treatment should be discussed with the Transplant Center.
- Skin Cancer, except melanomas, can be referred after treatment.
- Invasive Cancer with positive lymph nodes and possible poor outcomes must be Cancer free for a minimum of 3 years, but usually 5 years.
- The above can include Breast, Colon, Prostate, Uterine, Melanoma's and Lung Cancer.
- Patients with a diagnosed or suspected Hepatocellular Cancer (HCC) need rapid work up and referral.
- Patients listed for transplant with HCC need chest and abdominal CT's and AFP's, every three (3) months.
- With pending changes in the United Network for Organ Sharing (UNOS) criteria for HCC patients, we recommend discussion with the Transplant Centers.
- Patients post transplant for HCC must have follow-up medical evaluations every six (6) months for at least a year. An evaluation every 2 to 3 years is optimal.



### Fulminant Hepatic Failure (FHF): High Incidence of Herbal Supplement Use

A.M.H. Busch, J. Estes, D. Stolpman, A. Olyaei, J. M. Ham, J. Schwartz, S.L. Orloff  
*Portland VA Medical Center & Oregon Health and Science University*

#### **Background**

Herbal supplement use is on the rise in the United States despite a dearth of research regarding efficacy and toxic side effects. In addition, herbal and dietary supplements are not required to undergo U. S. Food and Drug Administration (FDA) scrutiny.

#### **Purpose**

To establish the incidence and outcomes of potentially hepatotoxic herbal and dietary supplement use in the fulminant hepatic failure (FHF) patient population at our institution.

#### **Method**

A retrospective electronic and hard copy chart review was obtained for all patients referred to the Liver Transplant Service for FHF from January 2001 through October 2002 (n=20). FHF was defined as onset

of encephalopathy within eight weeks of onset of jaundice in the absence of preexisting liver disease. Potentially hepatotoxic supplements were defined as those with previous published reports of hepatic injury related to their use.

## Results

Ten patients (50%) had recent use of potentially hepatotoxic herbs or dietary supplements; ten had no history of herb or dietary supplement use. In the supplement group, seven patients (70%) had no other identified risk factors for FHF. Six patients in the supplement group and two patients in the non-supplement group underwent orthotopic liver transplantation (OLTx). Five patients in each group died. There was no significant difference in transplantation rate ( $p=.075$ ) or survival ( $p=1.00$ ) between supplement and nonsupplement groups. The single greatest etiologic factor for FHF during this period was supplement use alone; acetaminophen ( $n=5$ ) was the next most common factor.

## Implication for Practice

The most common etiologic factor for FHF in our patient population during the study period was herb and dietary supplement use although the patients in the study seemed unaware of the potential toxic effects of the substances. More education regarding the potential adverse health effects of herbs and dietary supplements needs to be provided to health care providers and consumers. In addition, increased regulatory oversight of these substances should occur.

## Learning Objectives

The participant will be able to:

1. Discuss the most common etiologic factors of FHF.
2. Discuss the outcomes of patients with FHF due to herb and supplement use compared to other etiologic factors.

## References

- Favreau, J.T., Ryu, M.L., Braunstein, F., Orshansky, G., Park, S.S., Coody, G.L., Love, L.A., Fong, T.L. (2002). Severe hepatotoxicity associated with the dietary supplement Lipokinetic. Annals of Internal Medicine, 136(8), 590-595.
- Parkman, C.A. (2002). CAM trends. Another FDA warning: Kava supplements. Case Manager, 13(4), 26-27.

## Important Documentation Required in a Transplant Referral Process:

(check website for copies: <http://vaww.va.gov/transplant>)

### 1. Referral Form Front

Department of Veterans Affairs		VA TRANSPLANT REFERRAL FORM	
This form, with all required documents, plus 3 copies of the entire packet should be mailed by the primary VAMC to: Manager, VA Transplant Program (111) Department of Veterans Affairs 810 Vermont Avenue, NW Washington, D.C. 20420			
For Information About: Brain, Heart, or Lung Liver, Kidney or Kidney/Pancreas OR 1-800-80-HEART (1-800-804-3278)			
PART I (All sections of Part I must be completed by the primary VAMC)			
TYPE OF TRANSPLANT: <input type="checkbox"/> BONE MARROW <input type="checkbox"/> HEART <input type="checkbox"/> LUNG <input type="checkbox"/> LIVER <input type="checkbox"/> PANCREAS <input type="checkbox"/> KIDNEY <input type="checkbox"/> KIDNEY/PANCREAS			
PRIMARY VAMC WHERE PATIENT IS ENROLLED (City, State)		VA SUPPORT PERSON (Relationship)	
A1. PATIENT'S SOCIAL SECURITY NUMBER		A2. SUPPORT PERSON'S NAME (Last, First, Middle Initial)	
A3. PATIENT'S NAME (Last, First, Middle Initial)		A4. SUPPORT PERSON'S ADDRESS (City, State and Zip Code)	
A5. PATIENT'S ADDRESS (City, State and Zip Code)		A6. SUPPORT PERSON'S TELEPHONE NUMBER (Home)	
A7. PATIENT'S TELEPHONE NUMBER (Home)		A8. SUPPORT PERSON'S TELEPHONE NUMBER (Work)	
B. Must be completed and signed by Chief Health Administration Service (HAS), or equivalent, thereby certifying patient is eligible for care and travel. Copy of patient's eligibility information must be attached.			
C. VA STAFF PHYSICIAN MUST PROVIDE ALL INFORMATION			
C1. DATE OF BIRTH		C2. DATE OF BIRTH	
C3. AGE		C4. AGE	
C5. SEX		C6. SEX	
C7. RACE		C8. RACE	
C9. ETHNICITY		C10. ETHNICITY	
C11. PATIENT'S PRIMARY PHYSICIAN		C12. PATIENT'S PRIMARY PHYSICIAN	
NOTE: If C11, C12, and C13 are YES, indicate details in physician referral letter and social evaluations.			
C13. HISTORY OF ALCOHOL USE		C14. HISTORY OF ALCOHOL USE	
C15. HISTORY OF SUBSTANCE ABUSE		C16. HISTORY OF SUBSTANCE ABUSE	
C17. HISTORY OF TUBERCULOSIS		C18. HISTORY OF TUBERCULOSIS	
C19. HISTORY OF HIV INFECTION		C20. HISTORY OF HIV INFECTION	
See attached letter			

### Back

PATIENT NAME		SOCIAL SECURITY NUMBER	
All transplant referrals must include the following GENERAL and ORGAN SPECIFIC information. NOTE: Non-invasive tests (e.g., ultrasound, CT scan, MRI, etc.) may be used in lieu of invasive tests (e.g., biopsy, etc.) if they are not available. Referrals will not be processed without documented evidence of required tests, procedures, and evaluations as listed below.			
PART I (Continued) - GENERAL INFORMATION: Required for all types of transplants referrals.			
VA staff physician summary letter		Discharge summary of last hospitalization	
Examinations: <input type="checkbox"/> Visual <input type="checkbox"/> Physical <input type="checkbox"/> Dental		Interim summary (if current incident)	
Blood Type: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> AB <input type="checkbox"/> RH Neg		List of current medications	
Serologic: <input type="checkbox"/> HBsAg Neg <input type="checkbox"/> HBsAb Neg <input type="checkbox"/> HCV Neg <input type="checkbox"/> HIV Neg <input type="checkbox"/> CMV IgG Neg <input type="checkbox"/> RPR/VDR Neg			
Procedures: <input type="checkbox"/> CXR <input type="checkbox"/> EKG <input type="checkbox"/> PFT/CTD <input type="checkbox"/> Echocardiogram <input type="checkbox"/> Thallium (if history of hypertension, angina, or cardiac disorder)			
Labs: <input type="checkbox"/> CBC <input type="checkbox"/> UA <input type="checkbox"/> Chemical Profile <input type="checkbox"/> Coag <input type="checkbox"/> TBM <input type="checkbox"/> T4 (if T4 is abnormal)			
<input type="checkbox"/> 24-hour Creatinine Clearance <input type="checkbox"/> Urine Toxicology Screen Neg <input type="checkbox"/> Blood ETOL Screen (if history of alcohol)			
ORGAN SPECIFIC INFORMATION			
BONE MARROW: <input type="checkbox"/> Results of diagnostic bone marrow aspirate and biopsy		<input type="checkbox"/> Results of HLA typing of allograft (required)	
<input type="checkbox"/> Results of post-transplant sensitivity		<input type="checkbox"/> Results of CT/MRI or Bone Scan	
<input type="checkbox"/> Results of MODAL (if post-transplant)			
HEART: <input type="checkbox"/> Results of right and left ventricular catheterization		<input type="checkbox"/> Results of MUGA 2	
<input type="checkbox"/> Results of cine of ventricles (if pulmonary pressures are elevated)		RVHA Class: 1	
<input type="checkbox"/> Results of MODAL (left and right)			
LUNG: <input type="checkbox"/> Results of right cardiac catheterization (if diagnosis of primary pulmonary hypertension or cor pulmonale)		<input type="checkbox"/> Results of lung biopsy (if available)	
<input type="checkbox"/> Results of left cardiac catheterization (if age >40 or CVD)		<input type="checkbox"/> Results of chest CT scan (if available)	
<input type="checkbox"/> Results of nuclear gases with left and right spirometry		<input type="checkbox"/> Results of alpha one anti-trypsin level	
<input type="checkbox"/> Results of polysomnography study (if evidence of sleep apnea)		<input type="checkbox"/> Results of arterial blood gases	
LIVER: <input type="checkbox"/> Results of HBsAg Neg <input type="checkbox"/> Results of HCV Neg <input type="checkbox"/> Results of AFP levels		<input type="checkbox"/> Results of liver biopsy (if available)	
<input type="checkbox"/> Results of HBsAg, HBsAb, and CNA (if HBsAg is positive)		<input type="checkbox"/> Results of abdominal CT or MRI	
<input type="checkbox"/> Results of Doppler ultrasound to measure vessel patency			
<input type="checkbox"/> Results of colonoscopy or flexible sigmoidoscopy (if age >40)			
KIDNEY: <input type="checkbox"/> Results of BUN and creatinine levels (if HCV positive)		<input type="checkbox"/> Results of renal biopsy (if HCV PCR positive)	
<input type="checkbox"/> Results of colonoscopy or flexible sigmoidoscopy (if age >40)		<input type="checkbox"/> PSA (if age >40)	
NOTE: After review of referral packet as outlined above, additional information/results may be required by Review Board members.			
VA STAFF PHYSICIAN (For Name and Sign)		TELEPHONE NUMBER FAX NUMBER EMAIL ADDRESS	
VA CONTACT PERSON (For Questions/Problems)		TELEPHONE NUMBER FAX NUMBER EMAIL ADDRESS	
VA CHIEF OF STAFF (For Name and Sign)		TELEPHONE NUMBER FAX NUMBER EMAIL ADDRESS	
PART II - To be completed by Manager, VA Transplant Program, Washington, D.C.			
FINAL DECISION: <input type="checkbox"/> APPROVE <input type="checkbox"/> TRANSPLANT CENTER ASSIGNED TO: <input type="checkbox"/> CENTER <input type="checkbox"/> DEFER <input type="checkbox"/> CANCEL			
Comments:			
VA TRANSPLANT PROGRAM OFFICIAL (For Name and Sign)			

## 2. Requirements for a Liver Transplant

Liver Transplant Referral Packet Checklist Used By VACO		
PATIENT NAME:	LIVER	COMMENTS
VA Transplant Referral Form - VA Form 10-0390		
VA Physician Summary Letter (see Page A-1, paragraph 1, of Directive for complete details)		
Discharge Summary		
Interim Summary		
Social Work Evaluation (Use template template dated December 2003)		
Psychiatric Evaluation (Use template template dated May 2003)		
Dental Evaluation (Treatment plan)		
List of Current Medications (Current list)		
CXR		
EKG		
PFTs with DLCO		
Echocardiogram		
Pharmacological Cardiac Stress Test (required if age >40 or any cardiac risk factors; e.g., HTN, diabetes, smoking history, obesity, etc.)		
Duplex US (no vascular stents)		
Abdominal CT or MRI		
If HCC suspected need CT of Thorax, Abdomen and Pelvis		
Colonoscopy or Flex Sig (if age >40, must have sigmoidoscopy results if available)		
Path Report (any cancer)		
Liver biopsy (as needed)		
AFP		
PT/INR		
ABO/RH		
HAV		
HBsAg		
HBsAb		
HBc Ab		
HBs Ag (if >40, no test)		
HBc Ab (if >40, no test)		
DNA (if >40, no test)		
HCV		
HIV		
CMV IgG		
RPR/VDRL		
CBC		
UA		
Chem Profile (includes comprehensive metabolic profile)		
Coags		
TSH		
TA (if TSH abnormal)		
24-Hr Creatinine Clearance or GFR (as needed)		
Toxicology Screen (required for all referrals; see page A-1, paragraph 7 of this Directive for a list of substances that must be screened)		
Blood ETOH Screen (if history within 2 years, at least 3 screens; if longer, then 1 screen)		
Smoking Screen (same as ETOH Screen)		
Eligibility Information (Automated VA Form 10-10 or 10-10a)		

**Note the New  
Changes in the  
Liver and Kidney  
Checklists:  
Changes July 2004**

## 3. Requirements for a Kidney Referral.

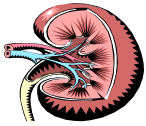
Kidney Transplant Referral Packet Checklist Used By VACO		
PATIENT NAME:	KIDNEY	COMMENTS
VA Transplant Referral Form - VA Form 10-0390		
VA Physician Summary Letter (see Page A-1, paragraph 1, of Directive for complete details)		
Discharge Summary (Current summary only)		
Interim Summary		
Social Work Evaluation (Use template template dated December 2003)		
Psychiatric Evaluation (Use template template dated May 2003)		
Dental Evaluation (Treatment plan)		
List of Current Medications (Current list)		
CXR		
EKG		
PFT w/DLCO (HSA version - 2003 pack per or smoking hx or lung disease)		
Ejection Fraction (e.g., 10-15 column or Echocardiogram table)		
If HCV Positive Need Hepatology/GI Consult		
If HCV/PCR Positive Need Liver Biopsy		
If Kidney/Pancreas Need C-Peptide and Glucose Level (done at same time)		
If Kidney/Pancreas Need Thorough Cardiac Consult/Workup		
Colonoscopy or Flex Sig (if age >40, must have sigmoidoscopy results if available)		
PSA (if age >40)		
PT/INR		
ABO/RH		
HBsAg		
HBsAb		
HCV		
HIV Ab		
CMV IgG		
RPR		
CBC		
UA		
Chem Profile		
Coags		
Toxicology Screen (required for all referrals; see page A-1, paragraph 7 of this Directive for a list of substances that must be screened)		
Blood ETOH Screen (if history within 2 years, at least 3 screens; if longer, then 1 screen)		
Smoking Screen (same as ETOH Screen)		
Eligibility Information (Automated VA Form 10-10 or 10-10a)		

## 4. Requirements for a Heart/Lung/BMT

PATIENT NAME:	TRANSPLANT REFERRAL PACKET CHECKLIST			COMMENTS
	BMT	HEART	LUNG	
VA Referral Form				
VA physician summary letter				
Latest discharge and/or Interim summary				
Social eval				
Psych eval				
Obstet eval (Transf. not should begin with patient's name)				
List of current meds				
CXR				
EKG				
PFT w/DLCO				
Echocardiogram (BMT - INL & DGL & MUGA as needed)				
Thallium (or other than heart thallium, if HTN, angina or cardiac disease)				
BM aspirate/bx (or diagnostic path report)				Done Type
Post-chemo response (e.g., INL, DGL, MUGA)				Done Type
CT/MRI or bone scan (as needed for post-chemo)				Post-chemo Post-chemo
MUGA/EF (left/right) or post-chemo				
HLA typing of patient and family (if avail)				
Right cardiac cath				
Left cardiac cath				
MUGA/EF (left/right) (if not available, then alternate)				
Trial vasodilators (if post-chemo eval)				
MUGA (if procedure available at referring center)				
NYHA Class				
Right card cath (if not available)				
Left card cath (if not available)				
MUGA with left/right EF				
Chest CT w/contrast				
Arterial blood gas (ABG)				
Alpha-1 anti-trypsin level (A1AT)				
Lung biopsy (if available)				
Polysonomography study (if avail)				
Path Report (any lung or biopsy other than above)				
ABO				
ABO/RH				
HBsAg				
HBsAb				
HCV				
HIV				
CMV IgG				
RPR/VDRL				
CBC				
UA				
Chem Profile				
Coags				
TSH				
TA (if TSH abnormal)				
24-Hr Creatinine Clearance				
Tex screen (required for all referrals)				
ETOH random screen (if history within 2 years, at least 3 screens; if longer, then 1 screen)				
Smoking random and/or urine as ETOH				
VA Form 10-10 (Eligibility information)				

Templates Available: Check website: <http://vaww.va.gov/transplant>

- SOCIAL WORK ASSESSMENT FOR TRANSPLANT CANDIDATES
- MENTAL HEALTH ASSESSMENT FOR TRANSPLANT CANDIDATES
- VA PHYSICIAN SUMMARY LETTER SAMPLE



## Living Kidney Donation: Prevalence and Etiology of Potential Donor

**Anthony J. Langone**, Internal Medicine/Nephrology, Vanderbilt University, Nashville, Tennessee, United States and Surgery/Renal Transplantation, Vanderbilt University, Nashville, Tennessee and Nephrology, Nashville VA Medical Center, Nashville, Tennessee

In 2001, for the first time in history, living donors outnumbered cadaveric renal donors. In order to better understand the prevalence and variety of subclinical illnesses in what are considered “healthy” volunteers, we retrospectively reviewed the renal donor evaluations of all patients between July 2001 and May 2003. There were 277 total donor evaluations performed at the Vanderbilt University Medical School and the Nashville Veteran Affairs Hospital. 94 patients (41%) were turned down from donation for one of more than 17 categorical reasons. The reason for rejected patients are: hypertension 28.7%, wouldn’t accept risks/changed mind 17%, glucose intolerance/diabetes 11.7%, low GFR 10.6%, macroproteinuria 4.3%, obesity (BMI>45) 4.3%, infectious hepatitis 3.2%, NSAID/alcohol abuse 3.2%, bilateral nephrolithiasis 3.2%, mass/cancer 2.1%, medullary sponge kidney 2.1%, anatomy (solitary kidney/>2 bil. vessels) 2.1%, cystic kidney diseases 2.1%, recurrent UTI’s 1.1%, coercion 1.1%, severe liver disease 1.1%, psychiatric 1.1%.

Despite a prescreening history obtained by a coordinator before a patient is formally evaluated, a high percentage of patients failed the evaluation. In particular, screening for hypertension is essential for it appears to carry a high prevalence in our unsuspecting donor pool. Although some patients were significantly hypertensive and easily excluded, others had “borderline” blood pressures that were later proven to be hypertensive by 24 hour ambulatory blood pressure monitoring or evidence of left ventricular hypertrophy by EKG and/or echocardiogram.

Diligence in screening patients with a strong family history of diabetes (>2 primary members with diabetes) or evaluated random glucose levels with oral glucose tolerance testing, is also essential. Lastly, we recommend screening 24 hour urine collections. Four patients who had low glomerular filtration rates had normal serum creatinines and an acceptable glomerular filtration rate when calculated by Cockcroft-Gault estimation.

## ■ Effects of diabetes and cadaveric organs on functional performance and health-related quality of life after kidney transplantation.

***The American Journal of Surgery (2003): 186:535-539***

A. Tarik Kizilisik, M.D., Irene D. Feurer, Ph.D., David H. VanBuren, M.D., Paul Wise, M.D., Denise Van Buren, L.C.S.W., Jeanne Hopkins, R.N., **Jackie Ray**, R.N., **William Nylander**, M.D., David Shaffer, M.D., J. Harold Helderman, M.D., **Anthony J. Langone, M.D.**, Theodore Speroff, PhD., C. Wright Pinson, M.D., M.B.A. Vanderbilt University Transplant Center, Nashville, Tennessee and Division of Nephrology, Nashville VA Medical Center, Nashville, Tennessee.

Renal transplantation is a therapeutic option for end stage renal disease which prolongs survival and positively impacts quality of life parameters. This study identified factors specific to kidney transplantation that are associated with post-transplant functional performance (FP) and health-related quality of life (HRQOL). FP improved after kidney transplantation at 0,3,6, and 12 months. Patients receiving organs from living donors showed continued improvement through post-transplant year 1 while those with cadaveric organs stabilized at 6 months. Patients receiving dialysis therapy for 6 months or more prior to transplantation demonstrated lower SF-36 post-transplant physical component scores in comparison with patients who were transplanted preemptively. Pre-existing diabetes mellitus has a negative effect upon outcomes and HRQOL after transplantation by limiting FP. Diabetic complications in other organ systems and infectious complications associated with diabetes diminish patient survival.

- **Urinary Tract Infections Increases the Risk of Mortality after Renal**

**Transplantation: American Transplant Congress:** Peale Chuang, M.D., Jacqueline Ray, R.N., MBA, Beatrice Edmundson, FNP, Kristen Heins, Elizabeth Bleecker, Chirag Parikh, M.D, PhD., and Anthony Langone, M.D., Division of Nephrology and Hypertension, Vanderbilt University, Nashville, Tennessee, Division of Renal Diseases and Hypertension, University of Colorado, Denver, Colorado and Division of Nephrology, Nashville VA Medical Center, Nashville, Tennessee.

A retrospective cohort study was conducted on adult patients who received renal transplants at Vanderbilt University Medical Center and Nashville VAMC from January 1996 to January 2003. Primary outcome was the diagnosis of urinary tract infections (UTI) based on positive urine cultures and secondary outcomes were renal graft function and patient mortality.

Conclusions: UTI's are associated with an increased risk for mortality. Renal transplant patients at high risk for UTI's or those with a high risk for pathogens or recurrent UTI's may benefit from antibiotic prophylaxis. Future studies should address whether prevention of UTI's may decrease post-transplant mortality.

**Risk Factors for Post-Transplant Urinary tract Infections:**

Risk Factor	Odds ratio	95% Confidence Interval
Female gender	5.8	3.79-8.89
Age	0.02 per year	1.01-1.04
Reflux kidney disease (pre)	3.0	1.05-8.31
Imuran	1.9	1.02-3.58
Cadaveric donor	0.67	0.45-1.00

- **A Father, Lost and Found:**

*M. Renkl: Ladies Home Journal, August 2004:*

Story of a Living Kidney donation (daughter) to the Father recipient at Nashville VA Hospital.

- **Living Donor Kidney Transplantation in a VA Medical Center:**

*AT Kizilisik, J. Ray, B. Edmundson, S. Shaffer, WA Nylander, TA Langone, JH Helderman, VAMC, Nashville, TN.*

Between 1963 and 2003, 640 kidney transplants were performed at Nashville VAMC. Of these 134 (21%) were from living related donors. The % of living donors increased 7% between 1963 and 1983 to 33% between 1984 and 2003. In the last 6 years, the number of living donor kidney transplants surpassed deceased donor kidney transplants. Patient and graft survival was 79% and 58% between 16 months and 11 years after living donor transplants (1963-1983). Currently one-year survival is 97% and graft survival is 94%. Leading causes of death are cardiac and malignancy with a functional graft, followed by infections. Living donors represent a valuable resource and provide an additional supply of organs.

- **Living Donor Kidney Transplantation in a VA Medical Center:**

*AT Kizilisik, J. Ray, B. Edmundson, S. Shaffer, WA Nylander, TA Langone, JH Helderman, VAMC, Nashville, TN.*

Between 1963 and 2002, 614 renal transplants were performed at Nashville VAMC. In this 40 year experience, living transplants increased from 9% (1963-83) to 31% (1984-2002). One year patient and graft survival (72.5%, 50%) increased to 95%, 88% in 1984-2002. Current immunosuppressive maintenance regimens consist of Tacrolimus, Mycophenolate Mofetil and Prednisone with Thymoglobulin or Simulect and SoluMedrol induction. Rejection rates have also decreased from 43% for cadaveric liver to 21% for living donor to 10%. These results are comparable to non-VA Transplant Centers and shows that renal transplantation offers the veteran patient with ESRD a safe, cost effective and effective alternative to dialysis with increased quality of life.



**Dr. Thomas Cacciarelli, Chief of VA Pittsburgh Healthcare System Transplant Surgery Program, is Named a Finalist for the 2004 Service to America Medal**

The 2004 Service to America Medals finalists were recently announced on Capitol Hill and praised for their dedication to the federal civil service. Dr. Thomas Cacciarelli, Chief of Transplant Surgery at the Department of Veterans Affairs, Pittsburgh Health Care System (VAPHS), is one of the finalists for the Social Services Medal.

Dr. Thomas V. Cacciarelli has been a transplant surgeon at VAPHS since 1999 and the Director of Transplantation since 2002. Dr. Cacciarelli resigned from the University of Pittsburgh to accept a full time appointment as a transplant surgeon at VAPHS so that he could facilitate an independent United Network for Organ Sharing Charter for Transplantation. He has performed more than 50 organ transplants since joining VAPHS.

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**Rabies Infections in Organ Donor and Transplant Recipients?  
Morbidity and Mortality Weekly Report (MMWR) Vol. 53 2004 and MEDSCAPE  
from Web MD (7/23/2004)**

By Marianne Mathewson-Chapman PhD, ARNP



CDC has reported rabies as the cause of encephalitis in an organ donor and three organ recipients in Dallas, Texas (July 1, 2004). Officials in Alabama, Arkansas, Oklahoma and Texas began public health investigations to identify donor and recipient contacts, assess exposure risks and provide post exposure prophylaxis (PEP). The organ donor was an Arkansas man who was bitten by a bat, and who visited two hospitals in Texas with severe mental status changes and a low-grade fever. Imaging studies identified subarachnoid hemorrhage, leading to coma and death within 48 hrs of his admission. Donor eligibility screening and testing did not reveal any contraindications to transplantation and the family agreed to organ donation. Lung, kidneys and liver were recovered from the donor. The liver and kidneys were transplanted into three recipients on May 4 at a transplant center in Texas. The lungs were transplanted in a patient in an Alabama Hospital who subsequently died of intraoperative complications.

On July 7, CDC was notified of a liver transplanted patient with ESLD, who died of encephalopathy in June after a May transplant. Initially the liver transplanted patient did well after surgery and was discharged home on day 5. Twenty-one days after transplant, the patient was re-admitted with tremors, lethargy and anorexia. He was afebrile. His neurological status deteriorated rapidly within 24 hrs and was intubated and received critical care support. He had neurological abnormalities leading to seizure, coma and death. Pathologists identified intracytoplasmic inclusions, suggestive of rabies in brain neurons. Laboratory confirmed rabies viral antigens in multiple areas of the brain.

The 1<sup>st</sup> kidney recipient was a woman with ESRD caused by hypertension and diabetes. She had postoperative complications and was discharged home on day 7. Twenty-five days after transplant, she was admitted with right-side pain and underwent an appendectomy. Two days later, she developed twitching and had increasing lethargy. Her mental status worsened rapidly and cerebral images two weeks after admission indicated severe cerebral edema. She subsequently died.

The 2<sup>nd</sup> kidney recipient was a man with ESRD. He suffered a brief complication by occlusions of an artery graft leading to infarction of the lower pole of transplanted kidney. On day 12, he was discharged to home. Twenty-seven days post transplant, he visited the emergency room with myoclonic jerks and altered mental status. He was afebrile. His mental status deteriorated rapidly over the next 24 hrs. A

lumbar puncture revealed mild lymphocytic pleocytosis. Mental status continued to deteriorate leading to respiratory failure requiring intubation. A repeat MRI performed 10 days after admission indicated diffuse edema. The patient subsequently died.

In all three patients, histopathologic examination of the central nervous system tissue revealed encephalitis; the diagnosis of rabies in all three recipients was confirmed. Rabies virus antibodies were demonstrated in blood from two of the three recipients and the donor. Detecting rabies antibodies in the donor suggested that he was the likely source of rabies transmission to the organ recipients.

**This is the first documentation of cases of rabies virus transmission among solid organ transplant recipients.** Further investigations are on-going in Alabama, Arkansas, Oklahoma and Texas to identify a source of exposure for the donor.

**NOTE:** Rabies is acute fatal encephalitis caused by the neurotropic virus. The majority of rabies cases are caused by bites of a rabid mammal. Non-bite exposures including scratches, contamination of an open wound or direct mucous membrane contact with infectious material, rarely cause rabies. Following the incubation period (several weeks to months), the virus passes via the peripheral nervous system and replicated in the central nervous system. Rabies can be prevented by administering post-exposure prophylaxis (PEP); effective if given before the onset of clinical symptoms. The risk to healthcare workers is low when Universal Precautions are used for handling blood and body fluids. All potential organ donors in the United States are screened and tested to identify potential infection risks. Organ procurement organizations are required to evaluate organ donor suitability. Lab tests for rabies are not performed. CDC is working with federal and organ procurement agencies to review donor-screening practices. Additional information: <http://cdc.gov/ncidod/dvrd/rabies>



## **Cyclosporine: A Potential for Inappropriate Substitution**

**By: Domenica Russo, PharmD, Transplant Pharmacist, VAMC Portland, Oregon**

Cyclosporine has been an important drug in immunosuppressive regimens since the mid-1980s. Its original formulation, Sandimmune®, has variable and incomplete absorption with an oral bioavailability of approximately 30%. A newer microemulsion formulation of cyclosporine [modified], marketed under the brand name Neoral®, has increased bioavailability (~60%) compared to Sandimmune®. However, even with the newer formulation, absorption is still variable and can be affected by many factors including food, time from transplant, bile flow (only with Sandimmune®), and diarrhea. **Due to differences in bioavailability, Sandimmune® and Neoral® cannot be used interchangeably.**

To confuse matters, there are now generic forms of both Sandimmune® (Apotex product) and Neoral® (Gengraf™, SangCya™, and others). These generic products are AB-rated with their brand name counterparts, which mean they are bioequivalent. The FDA determines bioequivalence when two products have been proven not to differ in safety, efficacy, and bioavailability when administered at the same dosages. **If the brand of cyclosporine changes, providers should notify the transplant center.**

Based on clinical evidence and favorable cost profile, VA nationally switched patients on Neoral® to Gengraf™ early in 2003. Because Gengraf™ is bioequivalent to Neoral®, no additional lab monitoring is necessary after conversion. **However, Sandimmune® is NOT equivalent to Gengraf™ or Neoral®, therefore these products should not be substituted.** If a patient is switched from Sandimmune® to Gengraf™, he or she can potentially be exposed to more drugs with the potential for toxicity. On the flip side, a patient who is on a stable dose of Neoral® or generic equivalent who is switched to Sandimmune® may be at risk for rejection due to the decreased bioavailability of Sandimmune®.

For all the above reasons, **it is imperative to continue a patient on the formulation of cyclosporine prescribed by the transplant center.** If a physician intends to switch a patient from Sandimmune® to Gengraf™, increased therapeutic drug monitoring will be essential to prevent toxicity. Because the transplant center specifies and adjusts immunosuppression for the patient's life, it is important to communicate these changes to the center. As healthcare professionals become aware of the differences between different cyclosporine products, they play a key role in ensuring safe medication therapy in our transplant patients.

**Remember, Neoral® = Gengraf™ ≠ Sandimmune®!**

# **DRAFT COLLAGE**



## **COLLAGE WEB PAGE: Knowledge Management**

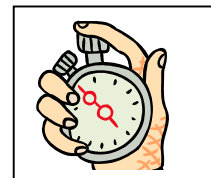
<div>■ Transplant Center Standards</div> <div>■ Role of Key Transplant Personnel</div> <div>■ Link to VA Home Page</div>	■ Communities On-Line Learning About Guidelines and Organ Transplant				Featured Sites: <div>■ VA Transplant Centers and Staffing</div>
	About/Help	Template for Social Work, Dental and Psychological Evaluation	Active Communities of Practice	Screening Survey for New referrals	
	Member Registration	Clinical Practice Guidelines	Disease Specific Pages	VA Websites	
	Educational Programs and Conferences	Best Practices in Transplant Community	Library/ Resources	Survey Tool	
	■ Links to VA Transplant Center locations				

**What is COLLAGE?** COLLAGE is a Knowledge Management Product for Dispersed Communities of Practice (CoP), sponsored by Dr. Frances Matt, COLLAGE Director. This system will enhance linking of knowledge from all transplant networks throughout the transplant community to improve organizational effectiveness and communication. Dr. Matt demonstrated this new technology on-line on 2 August for interested transplant coordinators to evaluate its feasibility and utility to meet the knowledge management needs for the Transplant CoP. Pam Hale RN, Chairman of the TCAG Educational Work Group is excited about its possibilities to enhance training opportunities, sharing of knowledge throughout the transplant community as well as sharing best practices, audiotapes of conference calls and presentations. Soon she will gather those interested in further developing COLLAGE and use will all those interested in serving our veterans with transplantation services.



## U.S. Organ Transplant Games:

Marianne Mathewson-Chapman PhD, ARNP



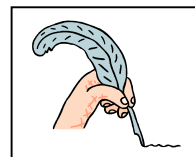
During the weekend of July 31-1 Aug, US Transplant Games were held in Minneapolis, Minnesota. Many of our veterans compete in these games and we hope to develop sponsors for future competition in 2005. Please send us pictures and a story of our veterans who compete and we will include in this newsletter. Recently in the news a 56 y/o woman, a District of Columbia resident, with end-stage emphysema was staring at a future attached to an oxygen tank. She received a lung transplant in 2002. At the 2004 US transplant Games, she will run over 3 miles in the 5K and the 800 meter races and playing volleyball. This event will feature more than 2,000 athletes with transplants. To prepare for these games, she runs 1-3 miles six days a week and weight training for five days a week. Her goal is to run the 5K, roughly 3.1 miles in 12 minutes. She hopes that her story will raise awareness and inspire others to donate their organs. GO GIRL!!!!

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### **HIV+ Veterans and Organ Transplants**

(AP/Wall Street Journal, 7/15)

Sara J. McVicker RN, MN



**DID YOU KNOW:** Illinois July 18, 2004, became the first state to pass a law that allows individuals with HIV to donate organs to other HIV-positive patients. No donations can take place until current HHS rules are lifted that bar the transfer of infected organs, but proponents of the measure say they soon will begin working with the United Network for Organ Sharing (UNOS) to change the HHS regulations. Current regulations, which bar infected organs from entering the pipeline, were put in place to protect uninfected individuals from receiving HIV-infected organs. Critics say there are not enough controls in place. Proponents say this will expand the base of potential donors and adds that "organs could prolong the lives of people who already have HIV, many whom are living longer because of advances in medicine."

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### **Lodging at VA Transplant Centers**

A summary of lodging capabilities at each the of the VA Transplant Centers will be available in the next issue of the Newsletter for liver, kidney, bone marrow, heart and lung transplants. This will assist you in notifying your patients where they can stay for low or no cost for their evaluations at pre and post-transplant periods.

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## Transplant Websites

<http://www.va.gov/transplants>

<http://vaww.va.gov/transplant>

- Guidelines in preparing transplant packets
- Transplant Brochure
- <http://www.donatelife.net>
- ❑ Details in becoming a donor.
- <http://www.optn.org/resources/>
- ❑ Upcoming events with UNOS.
- <http://www.va.gov/directory/>
- ❑ Refer to this website to get information from a particular VA Facility.
- ❖ <http://www.medscape.com>



### **REMINDER: Conference Calls VA National Transplant Program**

**August 20<sup>th</sup> at 2:00pm ET  
(Referral Process)**

**October 20<sup>th</sup> at 2:00pm ET**

WHO: VA staff involved in the transplant process.

How: Agenda and dial-in instructions are forwarded to the transplant e-mail group\*\* approximately two weeks prior to the call.

**\*\* e-mail your name to Valencia to be a member of the e-mail group\*\* and agenda items.**

## Upcoming Transplant Events and Conferences

### ■ Primary and Ambulatory Care Conference: Aug 24-26, 2004

Omni Shoreham Hotel, Washington DC

[http://Va.www.sites.lrn.va.gov/vacatalog/cu\\_detail.asp?id=18664](http://Va.www.sites.lrn.va.gov/vacatalog/cu_detail.asp?id=18664)

\*\*\*\*\* Transplant Poster session and Transplant Panel

### ■ 2004 Advanced Liver Disease Training Program Sept 19-21, 2004

Tropicana Hotel, Las Vegas, Nevada (702-739-2222)

\*\*\*\*\* Repeat training opportunity from May conference

## **HOT TOPICS FOR FUTURE ISSUES**

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- Standardized Ordering Data Sets
- Developing a Electronic Transplant Referral Form
- COLLAGE and Transplant Knowledge System for Communities of Practice
- Research Articles
- Review Board News

Thank you for all the articles and abstracts you submitted for this newsletter. The Editorial staff was able to summarize and edit to fit in the space allocated for articles. Please limit articles to short summaries. In the near future you will find this newsletter on the **COLLAGE** Transplant Web page.

We welcome your articles related to any current issues related to solid organ and bone marrow transplants and psychosocial issues relating to the care of transplanted veterans. Please contact Valencia Kelly at 202-273-8983 or e-mail your articles to [Valencia.Kelly@hq.med.va.gov](mailto:Valencia.Kelly@hq.med.va.gov). Since we will be expanding our coverage, please limit articles to no more than two pages, which includes graphs or pictures. Thank You.

VA National Transplant Program News will be released quarterly.

Released during:

**MAY, AUG, NOV, FEB.**

Submit articles by the **15<sup>th</sup>** of

**APR, JUL, OCT, JAN**

### **VA National Transplant Program NEWSLETTER EDITORIAL BOARD**

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